

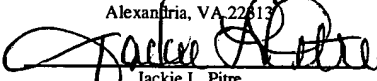
5-22-83

1. *Introduction*  
 2. *Background*  
 3. *Methodology*  
 4. *Results*  
 5. *Discussion*  
 6. *Conclusion*  
 7. *References*  
 8. *Appendix*  
 9. *Tables*  
 10. *Figures*  
 11. *Supplementary Materials*  
 12. *Notes*  
 13. *Abbreviations*  
 14. *Conflicts of Interest*  
 15. *Acknowledgments*  
 16. *Author Contributions*  
 17. *Data Availability Statement*  
 18. *References*  
 19. *Appendix*  
 20. *Tables*  
 21. *Figures*  
 22. *Supplementary Materials*  
 23. *Notes*  
 24. *Abbreviations*  
 25. *Conflicts of Interest*  
 26. *Acknowledgments*  
 27. *Author Contributions*  
 28. *Data Availability Statement*  
 29. *References*  
 30. *Appendix*  
 31. *Tables*  
 32. *Figures*  
 33. *Supplementary Materials*  
 34. *Notes*  
 35. *Abbreviations*  
 36. *Conflicts of Interest*  
 37. *Acknowledgments*  
 38. *Author Contributions*  
 39. *Data Availability Statement*  
 40. *References*  
 41. *Appendix*  
 42. *Tables*  
 43. *Figures*  
 44. *Supplementary Materials*  
 45. *Notes*  
 46. *Abbreviations*  
 47. *Conflicts of Interest*  
 48. *Acknowledgments*  
 49. *Author Contributions*  
 50. *Data Availability Statement*  
 51. *References*  
 52. *Appendix*  
 53. *Tables*  
 54. *Figures*  
 55. *Supplementary Materials*  
 56. *Notes*  
 57. *Abbreviations*  
 58. *Conflicts of Interest*  
 59. *Acknowledgments*  
 60. *Author Contributions*  
 61. *Data Availability Statement*  
 62. *References*  
 63. *Appendix*  
 64. *Tables*  
 65. *Figures*  
 66. *Supplementary Materials*  
 67. *Notes*  
 68. *Abbreviations*  
 69. *Conflicts of Interest*  
 70. *Acknowledgments*  
 71. *Author Contributions*  
 72. *Data Availability Statement*  
 73. *References*  
 74. *Appendix*  
 75. *Tables*  
 76. *Figures*  
 77. *Supplementary Materials*  
 78. *Notes*  
 79. *Abbreviations*  
 80. *Conflicts of Interest*  
 81. *Acknowledgments*  
 82. *Author Contributions*  
 83. *Data Availability Statement*  
 84. *References*  
 85. *Appendix*  
 86. *Tables*  
 87. *Figures*  
 88. *Supplementary Materials*  
 89. *Notes*  
 90. *Abbreviations*  
 91. *Conflicts of Interest*  
 92. *Acknowledgments*  
 93. *Author Contributions*  
 94. *Data Availability Statement*  
 95. *References*  
 96. *Appendix*  
 97. *Tables*  
 98. *Figures*  
 99. *Supplementary Materials*  
 100. *Notes*  
 101. *Abbreviations*  
 102. *Conflicts of Interest*  
 103. *Acknowledgments*  
 104. *Author Contributions*  
 105. *Data Availability Statement*  
 106. *References*  
 107. *Appendix*  
 108. *Tables*  
 109. *Figures*  
 110. *Supplementary Materials*  
 111. *Notes*  
 112. *Abbreviations*  
 113. *Conflicts of Interest*  
 114. *Acknowledgments*  
 115. *Author Contributions*  
 116. *Data Availability Statement*  
 117. *References*  
 118. *Appendix*  
 119. *Tables*  
 120. *Figures*  
 121. *Supplementary Materials*  
 122. *Notes*  
 123. *Abbreviations*  
 124. *Conflicts of Interest*  
 125. *Acknowledgments*  
 126. *Author Contributions*  
 127. *Data Availability Statement*  
 128. *References*  
 129. *Appendix*  
 130. *Tables*  
 131. *Figures*  
 132. *Supplementary Materials*  
 133. *Notes*  
 134. *Abbreviations*  
 135. *Conflicts of Interest*  
 136. *Acknowledgments*  
 137. *Author Contributions*  
 138. *Data Availability Statement*  
 139. *References*  
 140. *Appendix*  
 141. *Tables*  
 142. *Figures*  
 143. *Supplementary Materials*  
 144. *Notes*  
 145. *Abbreviations*  
 146. *Conflicts of Interest*  
 147. *Acknowledgments*  
 148. *Author Contributions*  
 149. *Data Availability Statement*  
 150. *References*  
 151. *Appendix*  
 152. *Tables*  
 153. *Figures*  
 154. *Supplementary Materials*  
 155. *Notes*  
 156. *Abbreviations*  
 157. *Conflicts of Interest*  
 158. *Acknowledgments*  
 159. *Author Contributions*  
 160. *Data Availability Statement*  
 161. *References*  
 162. *Appendix*  
 163. *Tables*  
 164. *Figures*  
 165. *Supplementary Materials*  
 166. *Notes*  
 167. *Abbreviations*  
 168. *Conflicts of Interest*  
 169. *Acknowledgments*  
 170. *Author Contributions*  
 171. *Data Availability Statement*  
 172. *References*  
 173. *Appendix*  
 174. *Tables*  
 175. *Figures*  
 176. *Supplementary Materials*  
 177. *Notes*  
 178. *Abbreviations*  
 179. *Conflicts of Interest*  
 180. *Acknowledgments*  
 181. *Author Contributions*  
 182. *Data Availability Statement*  
 183. *References*  
 184. *Appendix*  
 185. *Tables*  
 186. *Figures*  
 187. *Supplementary Materials*  
 188. *Notes*  
 189. *Abbreviations*  
 190. *Conflicts of Interest*  
 191. *Acknowledgments*  
 192. *Author Contributions*  
 193. *Data Availability Statement*  
 194. *References*  
 195. *Appendix*  
 196. *Tables*  
 197. *Figures*  
 198. *Supplementary Materials*  
 199. *Notes*  
 200. *Abbreviations*  
 201. *Conflicts of Interest*  
 202. *Acknowledgments*  
 203. *Author Contributions*  
 204. *Data Availability Statement*  
 205. *References*  
 206. *Appendix*  
 207. *Tables*  
 208. *Figures*  
 209. *Supplementary Materials*  
 210. *Notes*  
 211. *Abbreviations*  
 212. *Conflicts of Interest*  
 213. *Acknowledgments*  
 214. *Author Contributions*  
 215. *Data Availability Statement*  
 216. *References*  
 217. *Appendix*  
 218. *Tables*  
 219. *Figures*  
 220. *Supplementary Materials*  
 221. *Notes*  
 222. *Abbreviations*  
 223. *Conflicts of Interest*  
 224. *Acknowledgments*  
 225. *Author Contributions*  
 226. *Data Availability Statement*  
 227. *References*  
 228. *Appendix*  
 229. *Tables*  
 230. *Figures*  
 231. *Supplementary Materials*  
 232. *Notes*  
 233. *Abbreviations*  
 234. *Conflicts of Interest*  
 235. *Acknowledgments*  
 236. *Author Contributions*  
 237. *Data Availability Statement*  
 238. *References*  
 239. *Appendix*  
 240. *Tables*  
 241. *Figures*  
 242. *Supplementary Materials*  
 243. *Notes*  
 244. *Abbreviations*  
 245. *Conflicts of Interest*

Examiner: Bleck, Carolyn M.

Group/Art Unit: 3626

Atty. Dkt. No: 5053-35700

CERTIFICATE OF MAILING  
 UNDER 37 C.F.R. §1.8  
 DATE OF DEPOSIT: 5-7-03  
 I hereby certify that this correspondence is being deposited with  
 the United States Postal Service with sufficient postage as first  
 class mail on the date indicated above and is addressed to:  
 Commissioner for Patents  
 Alexandria, VA 22313  
  
 Jackie L. Pitre

Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

RECEIVED  
MAY 16 2003  
GROUP 3600

Please amend the above-captioned application as follows.

05/15/2003 DENMANU1 00000045 501505 09603302  
02 FC:1251 110.00 CH